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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known

Application Number	10/759,904
Filing Date	JANUARY 16, 2004
First Named Inventor	ERIC J. BECKMAN
Art Unit	1618
Examiner Name	JAMES WILLIAM ROGERS
Attorney Docket Number	02-012

Sheet 1 of 6

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US- 4,689,386	11-07-1985	CHAPMAN	
	A2	US-			
	A3	US-			
	A4	US-			
	A5	US-			
	A6	US-			
	A7	US-			
	A8	US-			
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	A12	US-			
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FOREIGN PATENT DOCUMENTS

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/James Rogers/

Date
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01/09/2009

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NON PATENT LITERATURE DOCUMENTS			
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	CS1	ZHANG, J.Y. et al. A new peptide-based urethane polymer: synthesis, biodegradation, and potential to support cell growth in vitro. Biomaterials, (2000), 21, 1247-1258.	
	CS2	BECKWITH, A.C. et al.; Direct estimation of lysine in corn meals by the ninhydrin color reaction. J. Agric. Food Chem. (1975), 23, No. 2, 194-196.	
	CS3	CHRISTMORE, D., et al.; Improved recovery and stability of ethanol in automated headspace analysis. J. Forensi Sci. (1984), 29, 1038-1044	
	CS4	HELLMER, J., et al. Automatic luminometric kinetic assay of glycerol for lipolysis studies. Anal. Biochem. (1989), 177, 132-137.	
	CS5	GRUDPAN, K., et al.; Flow injection spectrophotometric or conductometric determination of ascorbic acid in a vitamin C tablet using permanganate or ammonia. Talanta, (1999), 49, 1023-1026.	
	CS6	BRUDER, S.P., et al.; Growth kinetics, self-renewal and the osteogenic potential of purified human mesenchymal stem cells during extensive subcultivation and following cryopreservation. J.Cell Biochem. (1997), 64, 278-294.	
	CS7	ANDREONI, G., et al.; Densitometric quantification of neuronal viability by computerized image analysis. Exp. Neurol., (1997), 148, 281-287.	
	CS8	ISHAUG, S.L., et al.; Bone formation by three-dimensional stromal osteoblast culture in biodegradable polymer scaffolds. J. Biomed. Mater. Res., (1997), 36, 17-28.	
	CS9	SPAANS, C. J. et al.; A new biomedical polyurethane with a high modulus based on 1,4-butanediisocyanate and epsilon-caprolactone. Journal of Materials Science: Materials in Medicine; (1998); 9, 675-678	
	CS10	WANG, S. et al.; Role of glomerular ultrafiltration of growth factors in progressive interstitial fibrosis in diabetic nephropathy. Kidney International, (2000); 57, 1002-1014.	

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	CS11	ZHENG, F. et al.; Upregulation of type I collagen by TGF-Beta in mesangial cells is blocked by PPAR gamma activation. Am. J. Physiol. Renal. Physiol.; (2002); 282, F639-F648.	
	CS12	DERYNCK, R. et al.; The murine transforming growth factor-beta precursor. J. Biol. Chem.; (1986); 261; 4377-4379.	
	CS13	LAEMMLI, U.K. Cleavage of structural proteins during the assembly of the head of bacteriophage T4. Nature; (1970); 227; 680-685.	
	CS14	ZHANG, J. et al.; Effect of cystathionine and cystathionine metabolites on the phosphorylation of tyrosine residues in human neutrophils. Biochem. Biophys. Res. Commun.;(1996); 224; 849-854.	
	CS15	ZHENG, W.; ZHAO, Q. Establishment and characterization of an immortalized Z310 choroidal epithelial cell line from murine choroid plexus. Brain Res (2002); 958(2); 371-380	
	CS16	NAKAYAMA, Y. et al.;Development of high-performance stent: gelatinous photogel-coated stent that permits drug delivery and gene transfer. J Biomed Mater Res (2001); 57(4): 559-566.	
	CS17	KIM, B.S., MOONEY, D.J. Development of biocompatible synthetic extra cellular matrices for tissue engineering. Trends Biotechnol. (1998),16, 224-230.	
	CS18	SHINOKA, T.; et al.; Tissue engineering heart valves: valve leaflet replacement study in a lamb model. Ann. Thorac. Surg. (1995), 60, S513-S516.	
	CS19	FRANCESCHI, R. et al.; Effects of ascorbic acid on collagen matrix formation and osteoblast differentiation in murine MC3T3-E1 cells. J. Bone Miner. Res. (1994), 9, 843-854.	
	CS20	MIZUTANI, A. et al.; Expression of matrix metalloproteinases during ascorbate-induced differentiation of osteoblastic MC3T3-E1 cells. J. Bone Miner. Res. (2001), 16, 2043-2049.	

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	CS21	SPAANS, C. J. et al.; High molecular weight polyurethanes and a polyurethane urea based on 1,4-butanediisocyanate. Polymer Bulletin, (1998), 41, 131-138	
	CS22	SPAANS, C. J. et al.; New biodegradable polyurethane-ureas, polyurethane and polyurethane-amide for in-vivo tissue engineering: structure-properties relationships. Polymeric Materials Science and Engineering, (2001), 85, 61-62	
	CS23	FROMSTEIN, J. D. et al.; Elastomeric biodegradable polyurethane blends for soft tissue applications. Journal of Biomaterials Science Polymer Edition, (2002) 13, 391-406 .	
	CS24	SKARJA, G. A.; WOODHOUSE, K. A.; Synthesis and characterization of degradable polyurethane elastomers containing an amino-acid based chain extender. Journal of Biomaterials Science Polymer Edition, (1998), 9, 271-295.	
	CS25	SAAD, B. et al.; Development of degradable polyesterurethanes for medical applications: In vitro and in vivo evaluations. Journal of Biomedical Materials Research, (1997), 36, 65-74	
	CS26	BORKENHAGEN, M. et al.; In vivo performance of a new biodegradable polyester urethane system used a nerve guidance channel. Biomaterials, (1998), 19, 2155-2165 .	
	CS27	KYLMA, J.; SEPPALA, J. V. Synthesis and characterization of a biodegradable thermoplastic poly(ester-urethane) elastomer. Macromolecules, (1997), 30, 2876-2882 .	
	CS28	GORNA, K. GOGOLEWSKI, S. Biodegradable polyurethanes for implants. II. In vitro degradation and calcification of materials from poly(epsilon-caprolactone)-poly(ethylene oxide) diols and various chain extenders. Journal of Biomedical Materials Research, (2002), 60, 592-606.	
	CS29	VROUWENVELDER, W. C. A. et al.; Histological and biochemical evaluation of osteoblast culture on bioactive glass, hydroxyapatite, titanium alloy, and stainless steel. J. Biomed. Mater. Res., (1993), 27, 465-475, .	
	CS30	REMES, A.; WILLIAMS, D.F. Immune response in biocompatibility, Biomaterials, (1992), 13:11, 731-743 .	

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	CS31	CHOONG, P. F. M. et al.; Effects of ascorbic acid, calcitrol, and retinoic acid on the differentiation of preosteoblasts. J. Orthop. Res., (1993), 11, 638-647, .	
	CS32	PRASHER, D. C. et al.; Primary structure of the aequorea Victoria green-fluorescent protein. Gene, (1992), 111, 229-233, .	
	CS33	HEIM, R. et al.; Wavelength mutations and posttranslational autoxidation of green fluorescent protein. Proc. Natl. Acad. Sci. USA, (1994), 91, 12501-12504.	
	CS34	CHALFIE, M. et al.; Green fluorescent protein as a marker for gene expression. Science, (1994), 263, 802-805.	
	CS35	OKABE, M. et al.; 'Green mice' as a source of ubiquitous green cells. FEBS Lett., (1997), 407, 313-319.	
	CS36	IKAWA, M. et al.; A rapid and non-invasive selection of transgenic embryos before implantation using green fluorescent protein (GFP). FEBS Lett., (1995), 375, 125-128.	
	CS37	KIM, S. et al.; Pore structure analysis of swollen dextran-methacrylate hydrogels by SEM and mercury intrusion porosimetry. J. Biomed. Mater. Res., (2000.), 53, 258-266.	
	CS38	SHEEHAN, D.;HRAPCHAK, B. Theory and practice of histotechnology. 2nd Ed. Battelle Press, Ohio, (1980), pp 226-227.	
	CS39	REINERT, H. et al.; In situ measurement of collagen synthesis by human bone cells with a Sirius Red-based colorimetric microassay: effects of transforming growth factor BETA2 and ascorbic acid 2-phosphate. Histochem. Cell Biol., (1999), 11, 271-276, .	
	CS40	ZHANG, J. et al.; Synthesis, biodegradability, and biocompatibility of Lysine diisocyanate-glucose polymers. Tissue Engineering, (2002), 8, No. 5, 771-785 .	

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	CS42	ATHANASIOU, K. A. et al.; Sterilization, toxicity, biocompatibility and clinical application of polylactic acid/polyglycolic acid co-polymer. Biomaterials, (1996), 17, 93-102.	
	CS43	PENCO, M. et al.; Degradation behaviour of block copolymers containing poly(lactic-glycolic acid) and poly(ethylene glycol) segments. Biomaterials, (1996), 17, 1583-1590.	
	CS44	RAMANATHAN, R. et al.; Alcohol inhibits cell-cell adhesion mediated by human L1. J. Cell Biol., (1996), 133, 381-390, .	
	CS45	FARLEY, J. R. et al.; Direct effects of ethanol on bone resorption and formation in vitro. Arch. Biochem. Biophys., (1985), 238, 305-314.	
	CS46	BRUIN, P. et al.; Design and synthesis of biodegradable poly(ester urethane) elastomer networks composed of non toxic building blocks. Makromol. Chem., (1988), 9, 589-594.	

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